

Appl. No. 10/709,710
Amdt. dated Nov. 11, 2005
Reply to Office action of June 23, 2005

REMARKS/ARGUMENTS

1. Regarding Examiner's Notes & Remarks:

5 The claims have been reviewed and typographical and grammatical errors, where perceived, have been corrected. Errors detected in claims 1, 7, 10-14 have been marked-up and amended herein. Further in claim 1, the limitation regarding "the exhaust fan" is amended according to FIG.6. No new matter is introduced.

10 Furthermore, the original claim 6 is canceled because the limitation in claim 6 has already been included in claim 1.

2. Regarding rejections under 35 U.S.C. 102 and 35 U.S.C. 103:

15 Claims 1-9 and 12-14 are rejected under 35 U.S.C.102(b) as being anticipated by Shiraishi (U.S. Patent No. 6,334,686). And claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatenable over Shiraishi (U.S. Patent No. 6,344,686) in view of Bok (U.S. Patent Application Publication No. 2002/0180938). Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (U.S. Patent No. 6,334,686).

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Response:

The amended claim 1 is repeated as follows:

- 25 1. An intake structure, installed in a projection apparatus which has at least one heating element, comprising:
 at least one intake port disposed on said projection apparatus;
 at least one air duct, an inlet of said air duct being directly connected to said intake

Appl. No. 10/709,710
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port and an outlet of said air duct being disposed near said heating element;
an exhaust fan disposed near said heating element for exhausting air passing by
said heating element, an exhaust side of said exhaust fan facing said heating
element.

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In the amended claim 1, it is clear that the inlet of the air duct is directly connected to the intake port. The outlet of the air duct is disposed near the heating element. The exhaust fan is disposed near the heating element. And the exhaust side of the exhaust fan faces the heating element. Such arrangement allows the exhaust fan to cool the heating
10 element by exhausting air outside the projection apparatus. Since during operation of the projection apparatus, the air outside the projection apparatus is likely to have a temperature lower than the air inside the projection apparatus. Cooling the heating element by exhausting air outside the projection apparatus can effectively reduce the temperature of the heating element. Besides, due to the inlet of the air duct is directly
15 connected to the intake port, the air introduced from outside the projection apparatus directly passes through the air duct to cool the heating element. Thus, by the air duct for concentrating the air to increase cooling efficiency and air inletting volume, the area of the intake port can be reduced so as to decrease the light and noise escaping from the intake port.

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However, in the cooling system disclosed by Shiraishi (U.S. Patent No. 6,334,686), the centrifugal fan 140 dissipates air toward the wind guiding unit 714. The heat generating elements (components including the light valve means) are positioned at ends of the wind guiding unit 714 opposite to the end of the wind guiding unit 714 next to the
25 centrifugal fan (col.9, line 67 - col.10, line 11). Shiraishi fails to teach or suggest that the centrifugal fan 140 cools heat generating elements by directly exhausting air outside an apparatus comprising the cooling system. During the operation of the apparatus, the temperature inside the apparatus is likely to increase, if the centrifugal fan 140 exhausts

Appl. No. 10/709,710
Amdt. dated 11/11/05, 2005
Reply to Office action of June 23, 2005

air inside the apparatus to cool the heat generating elements, the cooling will not be as effective as the projection apparatus in the amended claim 1 of the present application because the temperature inside the projection apparatus is higher than outside. Therefore, the amended claim 1 cannot be anticipated by Shiraishi. And Shiraishi fails to teach or suggest that the inlet of the air duct is directly connected to the intake port, Shiraishi can not decrease the light and noise escaping from the intake port.

Further, Bok also fails to teach or suggest any fan which cools heat generating elements by exhausting air outside an apparatus. Therefore Shiraishi and Bok cannot be reasonably combined to form the amended claim 1 of the present application. And the amended claim 1 is allowable over the cited art.

Since claims 2-5, 7-15 are depended on the amended claim 1 which is not obvious over the cited art, it is believed that claims 2-5, 7-15 should be allowable over the cited art. Reconsideration of claims 1-5, 7-15 is hereby respectfully requested.

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Appl. No. 10/709,710
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Sincerely yours,

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Date: *Nov. 11, 2005*

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